

REMARKS

Claims 1 and 7 are pending and stand rejected. Reconsideration of the claim rejections is respectfully requested in view of the above amendments and following remarks.

Claim Rejections Under 35 U.S.C. §112

Claims 1 and 7 stand rejected under 35 U.S.C. §112, second paragraph, for the reasons set forth on page 2 of the Office Action. Claims 1 and 7 have been amended to remove references to “resistivity” of the edge ring. Moreover, with respect to the claimed spacing, the diameters of commercially available silicon wafers are standard and not random. Therefore, the claim language regarding the distance between the “*slanted step portion of the edge ring*” and the “*edge portion of the wafer to be etched*” is substantially definite, as the apparatus dimensions can readily be envisioned by one of ordinary skill in the art based on known, standard wafer diameters. Therefore, Claims 1 and 7 are believed to be clear and definite and withdrawal of the rejection is respectfully requested.

Claim Rejections Under 35 U.S.C. §103

Claims 1 and 7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over applicants’ admitted prior art (AAPR) in view of U.S. Patent No. 6,074,488 to Roderick et al. (“Roderick”) and further in view of U.S. Patent No. 6,284,093 to Ke et al. (“Ke”). It is respectfully submitted that the combination of AAPR, Roderick and Ke is legally deficient to establish a *prima facie* case of obviousness against claims 1 and 7.

To begin, the Examiner has not sufficiently addressed Applicants’ previous arguments that neither AAPR nor Ke discloses or suggest an *edge ring that comprises a slanted step portion whose surface forms an angle in a range of about more than 55 to*

about 80 degrees relative to a normal to a wafer surface, as essentially claimed in claims 1 and 7.

Indeed, Examiner once again erroneously relies on AAPR, FIG. 2 of Applicants' specification contending that the slanted step portion of FIG. 2 appears to have the same angle as in the invention depicted in FIG. 4. However, FIGs. 2 and 4 are merely schematic (not to scale) illustrations **and the differences in the slopes/angles between FIGs. 2 and 4 are clearly explained on page 6, lines 7-18 of Applicants' specification.**

It is improper, as a matter of law, for the Examiner to merely rely on the schematic drawings and ignore the express textual description. In the case at bar, the cited AAPR clearly does not disclose or suggest an edge ring that comprises a slanted step portion whose surface forms an angle in a range of about more than 55 to about 80 degrees relative to a normal to a wafer surface, as essentially claimed in claims 1 and 7.

Moreover, with respect to Ke, Examiner states that Ke discloses a slant angle of 55 degrees, but this is irrelevant with respect to the claim language which recites **more than 55 to about 80 degrees.** Examiner has failed to show how Ke discloses or suggests an angle of greater than 55 degrees. Moreover, given the fact that Ke discloses that a more preferred range is 30-45 degrees and that a 45 angle is preferred because it maximizes horizontal scattering (Col. 18, lines 43-45), Ke actually teaches against the claimed ranges of **more than 55 to about 80 degrees.**

Moreover, Applicants respectfully disagree with Examiner's characterization that the dimension "S" as disclosed in Ke is the same as the dimension "I" of the claimed invention. Indeed, the dimension or spacing "S" as depicted in Fig. 4 of Ke (and the cited section Col. 11, lines 33-35), clearly denotes the distance between about the center

of the slanted portion (32) of the collar (30) and the outer edge of the non-dielectric protective ring (50).

In clear stark contrast, the dimension "I" as depicted in FIG. 4 of Applicants' specification, for example, is clearly the distance between the point where *the slanted step portion of the edge ring begins* and the *edge portion of the wafer to be etched*, as essentially claimed in claims 1 and 7, respectively. Indeed, there is simply no basis, whatsoever, for Examiner's contention that "S" and "I" are the same.

For at least the above reasons, the combination of AAPR, Roderick and Ke does not disclose or suggest claimed features of claims 1 and 7. Accordingly, claims 1 and 7 are believed to be patentable over the cited combination. Therefore, withdrawal of the obviousness rejections is respectfully requested. Applicants request favorable consideration of the application as now presented.

Respectfully submitted,



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